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BOROUGH OF BATLEY

REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

For the Year 1896.

BATLEY:

Printed by F. H. Purchas, "News" Office.

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The Batley Urban Sanitary Authority.

GENTLEMEN,

I have the honour to present for your consideration, my Second Annual Report on the health of the Borough.

Area.

Physical Geography, Geology, and Rainfall.

The Borough of Batley comprises an area of 2,039 acres inhabited by a population of 28,719 persons at the last census (1891). The Borough is partly Urban and partly Rural in character, there being large open spaces in each Ward, which necessarily act as lungs for the more densely peopled districts. Many parts of the town are situated on considerable elevations, such as Staincliffe Reservoir which is 492 feet above sea level. White Lee, Brownhill, Howden Clough, Upper Batley, Purlwell, and Mount Pleasant are all at considerable altitudes. Nearly all the principal works, however, are on the Batley Beck, and the denser portions of the population reside in or near to these centres of industry. There are within, and immediately adjoining the North Ward, considerable patches of woodland, such as Carlinghow Shay, &c., but the other two Wards are almost entirely lacking in this respect. Geologically, coal and clay are our principal subsoil, along with sandstone and millstone grit. The Rainfall for 1896 was 21·46 inches, the average for the past seven years being 23·63 inches.

Population. The population at the census of 1891 was 28,719. It was in 1881 equal to 27,508, giving an average annual increase of 121, between that date and 1891. The estimated population for 1896 is 29,607, and on this figure all my calculations are based. This figure is arrived at by a calculation made on the average birth rate for 10 years.

Births. During the year 1896, 887 births were registered, 452 males and 435 females. THE BIRTH RATE was 29·95 per thousand, as compared with 28·58 per thousand, the rate for 1895. The average BIRTH RATE for the past ten years, commencing 1887, was 28·52 per thousand, so that we again this year occupy a good position. The rate for 1896 is the highest for the past thirteen years.

Deaths. The number of deaths registered during 1896 was 601. Of these, 299 were males, and 302 females. Twenty-five deaths occurred in the Dewsbury Union Workhouse, of persons who belonged to Batley.

THE DEATH RATE for the year 1896 was 20·29 per thousand, as compared with 19·89 per thousand, the rate for 1895. The average death rate for the past ten years, beginning 1887, was 20·36 per thousand, so that we are a fraction below the average rate.

Analysis of Death Rate.

The following is an analysis of the death rate :—

Zymotic Rate	4·055
Respiratory Diseases Bronchitis, Pneumonia, and Pleurisy	3·816
Phthisis (Consumption) and Tubucular Diseases	2·161
Heart Disease	1·249
Other Diseases............................	9·018
Total Rate............................	20·299

Zymotic Death Rate.

There were 120 deaths from Zymotic Diseases, the rate from this cause being 4·05 per thousand, as compared with 2·00 per thousand, the rate for 1895. The average Zymotic death rate for the past ten years is 3·36 per thousand. We are thus considerably over the average rate, while in 1895 we were considerably under it. If we deduct the deaths from measles from the Zymotic rate, we find the remainder gives a rate of 1·79 per thousand.

Analysis of Zymotic Death Rate.

An analysis of the Zymotic rate is instructive. It is made up as follows :—

Measles	2·267
Scarlet Fever	0·236
Whooping Cough	0·574
Typhoid Fever	0·337
Diarrhœa............................	0·641
Total Rate	4·055

Age at Death.

The following table shows the ages at which deaths occurred :—

TABLE No. I.

	1895.	1896.
Deaths under 1 year of age	166	159
Deaths over 1 year and under 5 years	64	123
,, ,, 5 ,, ,, 15 ,,	18	30
,, ,, 15 ,, ,, 25 ,,	28	27
,, ,, 25 ,, ,, 65 ,,	200	173
,, ,, 65 and upwards	101	89
Total	577	601

This table shows a high mortality between the ages of one year and five years, due largely to measles, there being in all 67 cases of measles, only 19 of which occurred in children under one year of age, while 44 were in children between one and five years of age, and 4 in those over five years of age. The returns of deaths in aged persons are much lower than those of last year, probably accounted for by the absence of Influenza, and the better meteorological conditions of last winter in comparison with that of 1895.

Infantile Mortality.

The Infantile mortality (under one year of age), though less in 1896 than in 1895, is still very high, viz., 178 per thousand born, as compared with 200 per thousand born in 1895. For the ten years, commencing 1887, we find the average annual infantile mortality to be 199 deaths per thousand born, so we are well under the average. At certain periods of the year, as during the month of March when measles was rampant, we had excessive monthly infantile death rates, such as 318 per thousand born. My contention that monthly returns often give a fictitious impression is borne out by the fact that our total annual rate is only 178 per thousand born. Up to the end of November our rate for infantile diseases was only 129 per thousand born, but the heavy December rate of 213 per thousand born ran up the annual figure considerably.

The infantile mortality in 1895 was much increased by the high diarrhœa death rate of 1·58 per thousand. This year the diarrhœa rate is only 0·64 per thousand. In place of that we have, however, a measles rate of 2·26 to contend with. Measles, as before stated, fell heaviest on children between one and five years, the number of deaths, at which age, is just double what it was in 1895.

I now append a table which is instructive in showing what diseases carried off the infantile population.

TABLE No. II.

Diseases.	Measles.	Whooping Cough.	Diarrhoea.	Prematurity of Birth.	Convulsions.	Bronchitis.	Debility.	Tuberculosis	Marasmus.	Meningitis.	Pneumonia.	Accidents.	Gastric Catarrh.	Rickets.	Heart Disease.	Abscess.	Enteritis.	Eczema.	Exhaustion.	Intussuception.	Jaundice.	Total.
January ..	1		1	1	1	2	2	1	1					1	1	1						13
February	1		1	5		1	1		2		1	1						1				14
March ..	11	1		1	1	2	3	2					1									22
April ..	3	3		1	1		4	1	1	1	1								1			17
May ..	1			2		2			1													6
June ..	1	1			1	3	1	1	2		1		1		1		1					14
July ..	1	1	2		2	1	2		1			1				1				1	1	14
August ..			2		1	2	1	1	1					1	1							10
September			3	2	1	1	1		1		1		1									11
October ..				1	2	4	2				1		1	1								12
November				1	1	4	4															10
December				1	3	2	4		3				1				2					16
Total ..	19	6	9	15	14	24	25	6	13	1	5	2	5	3	3	2	3	1	1	1	1	159

Causes of Infantile Mortality.

It will be seen from the above figures that debility, bronchitis, measles, prematurity of birth, convulsions, and marasmus (wasting) are responsible for 111 out of the 159 deaths.

WHAT ARE THE CAUSES OF INFANT MORTALITY?

1.—The employment of married women in factories, and the consequent shirking of the duty of suckling their infants.

2.—The unskilled artificial feeding of infants. The want of cleanliness in the preparation of the milk, giving it too strong, or not giving it at all. It is quite a common experience for a medical practitioner among the poor to find that new born babies are being fed on "pobs" (bread and milk, or, in some cases, only scalded bread sweetened).

3.—The administration to infants, by parents and others, of narcotics, in the form of proprietary medicines.

HOW ARE MANY OF THESE CHILDREN DESTROYED?

The mother works in the mill. A month after the birth of her child she returns to work, and, when she does so, very often weans the child, on the plea, probably, that the distance between the mill and her home is too great for her to return to meals. Even when she does return to suckle the infant, the milk is not so good either in quantity or quality, as it would be in the case of a woman doing purely domestic work. Well, suppose the infant to be weaned. It is tried with a feeding bottle, the milk often given half and half strength to a new born baby, the bottle probably imperfectly cleaned, the child getting an indigestible curd on to its stomach, which causes pain and wind. Or if the "pobs" of grandmotherly fame is given, horrible agonies of colic are sure to be endured by the infant, as the stomach was never intended to digest starchy food, during the first few months of its existence. With the infant in agony, the mother asks some old woman what to do, and is instructed to fetch some " caudle " from the druggist's. This is regularly given whenever the infant cries with pain. In a few days by this means fits are set up, owing to the brain becoming over-loaded with blood. A medical man is called in. His services are of no avail, and the infant dies. This is one phase of infant mortality.

Another and more protracted form of suffering results from the inefficient nourishment of the child brought up on faulty artificial food. Its bones never get as hard as they ought to be. They are in a soft pliable condition. The child is suffering from rickets, and along with this condition is found brain mischief, lung mischief, and irritation of the digestive tract. Many ricketty children are certified as dying of convulsions, bronchitis, cataarh of the stomach and intestines, but rickets is the primary cause of the delicate constitution, liable to these complications, which ultimately cut off many young lives, and appear on the death certificates as the " cause of death." Rickets is produced by either poor mother's milk, or, in the majority of cases, by improper bottle feeding, there being no proper assimilation of the milk swallowed by the system generally.

Besides improper bottle feeding, it is quite a common occurrence for the doctor to be told that " baby eats as we do," *i.e.*, gets greasy bones to suck during dinner, potatoes, gravy, and meat long before the teeth can properly chew it, or the stomach digest it. Tea, spirits, &c., are often given to children. It is quite a common thing for nursing mothers in the slums of large cities to indulge largely in stimulants. Infants suckled on alcoholized milk are in a chronic state of stupefaction, and besides that, a hereditary craving for liquor is set up, should the child reach adult life.

Other causes, which induce death in infants, are bad air, epidemics, &c., although the last named cause is not so fatal, except in the case of diarrhœa, in the true infant. They are more destructive to the one to five years of age children.

Remedies for Infantile Mortality.

WHAT ARE THE REMEDIES FOR THIS STATE OF THINGS?

Legislation wanted.

1.—That all mothers of infants should be compelled to remain at home for at least three months after the birth of a child. At present the Factory Act compels them to stay at home one month.

Crèches.

2.—That *Crèches* (public day nurseries), to which children could be sent during the absence of their mothers at work, should be established in every manufacturing town where female labour is largely employed. There, properly trained nurses would attend to efficient feeding, washing, &c., of the infant. This is no Utopian scheme, but has been adopted in some places, such as Blackburn in Lancashire, and rendered self-supporting. It can be worked on the co-operative principle. It costs for each child about 3s. a week. This system could be worked privately in large factories, where a room might be set apart for the purpose, and where children might be suckled by their mothers at the meal hours. At the same time bottles could be properly prepared for those who were fed artificially.

Married Women to be Restrained.

3.—Some restraint ought to be placed on pregnant women in regard to work. Much mischief is often done to the infant by working before its birth.

Lectures and Leaflets.

4.—Where the *Crèche* system is not practicable, the Local Authority may, by means of lectures to mothers, and the distribution of instruction leaflets to persons registering the birth of infants, combat much of the ignorance which prevails on the subject of bringing up infants. The Sanitary Authority of this Borough have tried the distribution of handbills by the Registrar of Births and Deaths, but these leaflets are practically worthless, and contain nothing very definit beyond a few simple rules. The Bedfordshire County Council are having free lectures delivered to mothers in connection with their Technical Teaching Committee, on the treatment or children in health and disease. If the Committee will give me permission, I will be very glad to give a lecture on this subject, and also to draw up a more comprehensive leaflet for distribution to parents registering the births of infants. Surely we can do something to dispel the crass ignorance on infant feeding of the average mother who goes out to work, and banish at least "pobs," potatoes, bread, "caudle," and all narcotics, from the diet and drug sheet of the infant, who has, alas! far too often, to be brought up by artificial feeding.

Suggestions for Medical Men and the Society for the Prevention of Cruelty to Children.

5.—In cases where medical men suspect narcotics to be administered by parents to be the direct cause of convulsions in a child who dies, they ought to withhold a certificate of death, and have the case investigated by the Coroner. There are some very heartless parents, who have not even the love of the brute creation for their offspring. These I would commend to the notice of the Society for Preventing Cruelty to Children. A great work lies before this Society in exposing the utter carelessness and cruelty displayed towards infant life by a certain class of our populations. But espionage and prosecution by the agents of this useful Association will not be sufficient to counteract this evil. We must educate the masses in sanitary science, it may be in a very elementary way, but only in this direction can we make any true progress in limiting the excessive infant mortality.

Summing up of general conclusions.

There seems to me no need for public *Crêches*. Those attached to mills might be made a great success. Instead of the proverbial old woman, who gives the child a greasy bone, crust, or even a rag, as I have been told, to suck, a competent nurse would attend to their every want, feeding the bottle-fed babies according to a recognised standard of strength corresponding to their age. Bottle-feeding, however, is to be deprecated. If nursing mothers can have facilities at the mills granted them for suckling their infants, a great step will have been taken, and a vast amount of infant mortality done away with.

I do not now profess to treat this subject so exhaustively as I might do, say in a lecture to mothers, but I deem it, nevertheless, one of paramount importance to the people of this country. One aspect of the question is worthy of mention, that is, the hasty and ill-considered marriages entered into by some young men, who know that their wives can bring in a living as well as themselves. This leads to immature persons marrying, enfeebled children, and misery.

We have reason in this Borough to be proud of our high birth-rates. They are speaking commentaries on the prosperity of the town, but when they are accompanied by such a waste, and that a preventible waste, of infant life, there is certainly a blot here which should be remedied. The following figures show pretty clearly how badly we stand in this respect :—

Comparative Figures.

Infantile	Mortality	(All England)	...161	per	1,000	born.
,,	,,	(West Riding)	...161	,,	,,	,,
,,	,,	(Batley)	200	,,	,,	,,

These are the figures for 1895. The 1896 figures are not yet available. We even overtop the five County Boroughs of Leeds, Sheffield, Bradford, Halifax, and Huddersfield, whose infantile mortality was 191 per 1,000 born.

INFANTILE MORTALITY—COMPARISON OF TOWNS LIKE BATLEY IN POPULATION, FOR 1895 :—

Barnsley	230	per	1,000	born.
Brighouse	131	,,	,,	,,
Dewsbury	172	,,	,,	,,
Keighley	178	,,	,,	,,
Morley	222	,,	,,	,,
Shipley	186	,,	,,	,,
Todmorden	146	,,	,,	,,
Doncaster	179	,,	,,	,,
Wakefield	201	,,	,,	,,
Batley	200	,,	,,	,,

I trust that what I have said on this subject may bear fruit in the near future.

The following table gives an analysis of the deaths occurring during the year :—

TABLE No. III.

	JAN.	FEB.	MAR.	APRIL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
Small Pox ...													
Measles	5	6	26	20	5	2	1		1			1	67
Scarlatina ...		1				1	1	2	2				7
Diphtheria and Croup ...													
Whooping Cough		2	2	5	3	2	2			1			17
Continued Fevers:													
Typhus ...													
Typhoid ...	1	1		1			1	1	2			3	10
Continued ...													
Diarrhœa and Dysentery...	1	3	1				3	7	4				19
Total	7	13	29	26	8	5	8	10	9	1		4	120
Erysipelas ...													
Phthisis and Tubercular Disease	4	3	9	7	9	4	3	7	2	10	2	4	64
Bronchitis and Pneumonia ...	13	8	11	9	11	8	7	5	9	12	10	10	113
Puerperal Fever								1	1				2
Rheumatic Fever			1			2					1		4
Heart Disease ...	1	3	4	6		4	3	2	5	3	2	4	37
Total Deaths from other causes...	23	23	27	24	18	18	19	21	20	25	17	26	261
Total Deaths from all causes...	48	50	81	72	46	41	46	40	46	51	32	48	601

The above table is invaluable, in showing the number of deaths from zymotic and other diseases occurring during each month in 1895.

The following table speaks for itself, and combines the information already furnished in Table III., as well as a comparative view for a series of six years :—

TABLE No. IV.

		1890	1891	1892	1893	1894	1895	1196
Small Pox			13	49	3		*	
Measles		10	18	4	32	2		67
Scarlet Fever		1	8	16	7	11		7
Diphtheria and Croup .. .. (Membranous)		4	7	18	13	10	3	
Whooping Cough		5	7	16	9	5	3	17
Continued Fever	Enteric	10	12	7	7	9	5	10
	Typhus							
	Doubtful ..	2	5	1	1	2	1	
Puerperal Fever		2	3		3	2	3	2
Diarrhœa and Dysentery ..		33	20	17	77	12	46	19
Erysipelas		4		3	3	4	1	
Total Deaths from Zymotic Diseases		71	93	131	155	57	62	122
Phthisis & Tubercular Disease						33	44	61
Rheumatic Fever		2	1	3	7	4		4
Heart Disease						40	48	37
Total deaths from other causes		511	607	484	533	353	423	374
Total deaths from all causes..		584	701	618	695	487	577	601

* Two Thornhill cases died in the Isolation Hospital, but are not taken into consideration in the calculations.

The next table combines the information already given as to births and deaths, and their respective rates, and gives a comparative view for a series of ten years :—

TABLE No. V.

Year.	Births.	Deaths.	Birth Rate.	Death Rate	Zymotic Diseases	Zymotic Death Rate.
1887	870	645	29·48	21·35	143	4·84
1888	877	511	29·73	17·32	64	2·19
1889	819	582	26·42	18·78	112	3·63
1890	845	584	27·22	18·90	71	2·29
1891	846	701	28·67	24·42	93	3·14
1892	772	618	26·80	21·53	128	4·45
1893	829	695	28·53	24·21	149	5·19
1894	854	487	29·73	16·95	53	1·84
1895	829	577	28·58	19·89	58	2·00
1896	887	601	29·95	20·29	120	4·05

Notification of Diseases.

The following is a table of the Notifications of Infectious Disease, which have been sent in during the year:—

TABLE No. VI.

1896.	JAN.	FEB.	MAR.	APRIL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
Small Pox... ...													
Cholera													
Diphtheria ...	1	1	1		3			1	2		1	1	11
Membranous Croup		1											1
Erysipelas... ...	4	4	2	1	3	5	1	5	1	4		5	35
Scarlet Fever ...	9	3	4	5	10	7	19	8	21	13	18	10	127
Typhus Fever ...													
Typhoid Fever ...	3	1				1	2	8	7	5	3	2	32
Enteric Fever ...	1	1			1	2	2	4	7		2		20
Relapsing Fever ...													
Continued Fever ...			1		1			2		1			5
Puerperal Fever ...								1	1				2
Totals...	18	11	8	6	18	15	24	29	30	23	24	18	233

Notifications.

The notifications have, as usual, proved exceedingly useful in enabling the Inspector and myself to locate infectious cases. If it were only for the remedial measures in sanitation effected through the agency of this Act, it was well worthy of being adopted by the borough. The full good of it is only experienced, where a complete Isolation Hospital supplements it. The Act, if carried out in the spirit of those who framed it, is of invaluable service, both to the medical profession and the general public. If so worked, the Act will conduce to the common health of the nation, and the advance of sanitary science.

Deaths among Notified Cases.

There were 233 notifications in 1896. There were 19 deaths from notifiable diseases, equivalent to a rate of 8·15 per cent. of notified cases, as compared with a rate of 7·51 per cent. in 1895, 17·27 per cent. in 1894, and 30·23 per cent. in 1893, so that as far as deaths from notifiable diseases are concerned, we hold an improving position.

Low Typhoid Death Rate.

I may here say that in that cardinal point of good sanitation, the absence of Typhoid Fever, we are fortunate in having so low a death-rate as 0·33 per thousand. This is the great test of thorough cleanliness in drains, ashpits, and closets, and I think the Sanitary Authority may be congratulated on the result of this activity in the Cleansing Department.

GENERAL SURVEY OF INFECTIOUS DISEASES.

Small Pox.

No case of this disease was notified.

Measles.

There were 67 deaths.

Scarlet Fever.

There were 7 deaths and 127 notifications.

Diphtheria and Membranous Croup.

There were no deaths, but 12 notifications.

Whooping Cough.

There were 17 deaths.

Enteric or Typhoid Fever.

This disease was responsible for 10 deaths, There were 52 notifications,

Diarrhœa and Dysentery

There were 17 deaths from this disease.

Erysipelas.

There were no deaths, but 35 notifications. In connection with this last disease, it is evidently intended to refer to Erysipelas due to sanitary defects, not to a mere angry flush round a wound. These 35 notifications are practically of little good to the Sanitary Authority, except in very rare instances. Erysipelas ought to be notified only when due to some sanitary defect.

Cow Sheds, Slaughter-houses, Tripe Boiling Establishments, Bakehouses, &c.

The Inspector and myself have again visited these, and found them in a fairly satisfactory state.

Inspection of Elementary Schools.

These have not yet been visited, but I propose doing so shortly.

Isolation Hospital.

Before long we hope to see our hospital accommodation located at White Lee, where it will be more accessible.

The Town's Water.

This has been uniformly good. I had the pleasure of visiting the reservoirs at Yateholme in February, along with the Corporation, and saw the storm-water interceptor working on the principle of unstable equilibrium. There can be no doubt that the use of this self-acting apparatus has been an unqualified success in clarifying the water, and lessening its plumbo-solvent action.

Trees in the Streets.

I have been informed that my remarks on this subject, in my last report, gave great satisfaction to many of the ratepayers, and I would again advocate the planting of trees in the streets, both on the score of utility and beauty. In Paris, the Corporation often pays as much as £15 for a deciduous tree in full leaf, which is raised and removed with all its roots by a special apparatus. Besides their utility and beauty, trees enhance the value of property in their neighbourhood If the Corporation cannot see their way to go on with this, probably some of the large property owners would financially be willing to assist in furthering a scheme which would be beneficial to their property in every way. I am informed that an offer of full grown trees at the time of laying out some part of Upper Batley was made by property owners, but was not accepted by the Council. The building of houses among existing full grown trees has enhanced the value of property and added largely to the beauty and salubrity of districts of Huddersfield, such as Edgerton.

Concluding Remarks.

In the year that is past, although we have nothing remarkable to chronicle beyond the high birth-rate, we have many things to be thankful for, no serious epidemic like small-pox having been prevalent within our borders, nor have we even had to treat a neighbouring Local Authority's cases as in 1895.

"Continued vigilance and promptitude in action" would be an excellent motto for the Sanitary Authority for the coming year.

I remain, Gentlemen,
Yours obediently,
J. A. ERSKINE STUART,
L.R.C.P. Edin., L.R.C.S., Edin.,
Fellow of the Incorporated Society of Medical Officers of Health.
Medical Officer of Health.

JANUARY 12th, 1897.